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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,315	01/04/2002	Wei Kuang Teng	BHT-3092-258	1997
40144	7590	08/24/2006	EXAMINER	
TROXELL LAW OFFICE PLLC 5205 LEESBURG PIKE, SUITE 1404 FALLS CHURCH, VA 22041			SHIFERAW, ELEN I A	
			ART UNIT	PAPER NUMBER
			2136	

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,315

Applicant(s)

TENG, WEI KUANG

Examiner

Eleni A. Shiferaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) 3,7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 June 2006 has been entered.

Response to Arguments

2. Appellant's amendments and arguments have been fully considered but are moot in view of new grounds of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-2 and 4-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Appellant amends independent claim 1 to include "a platter of" wherein partitioning a platter of a disk drive into plurality of disk zones... Appellant originally claims partitioning a disk

drive into plurality of disk zones. Moreover, the Appellant's disclosure describes regarding partitioning a disk drive but not partitioning a platter of a disk drive (see, page 2 lines 10, page 3 lines 14-19, page 4 lines 10-17). Therefore claims 1-2 and 4-6 are rejected as failing to comply with the written description requirement.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robb et al.

(Robb, US 6,931,503 B1) in view of Ruff et al. USPN 5,706,472.

Regarding claim 1, Robb teaches a method for data security with lock in a hard disk and a solid state disk, comprising following steps:

a procedure for partitioning a disk drive into a plurality of disk zones including **a user zone (PROTECTED mode**, see, fig. 2 user selects protected mode and no password validation required) and at least one zone selected from a group consisting of a ROM zone, and a protect zone (fig. 1, and col. 7 lines 17-55, **col. 2 lines 51-55**; *hard disk of a computer with one/two platter, ROM, RAM, ... protected/supervised mode ... unprotected/unsupervised mode ..., and the storage medium is divided into a plurality of non-overlapping partitions: ROM means, RAM means...)*);

utilizing a mathematical operation for treating a user input data and a register data (col. 5 lines 25-39, and claim 16; *comparing user password entered with previously stored password to access protected data/program stored on protected hard disk storage*); and

assigning one of two passwords to each of the ROM zone and the protected zone utilizing a password operation mode utilizing the mathematical operation with the user input data and the register data (col. 9 lines 60-66, col. 10 lines 7-12, and claim 28; *password is assigned to partitioned storages to protect stored data/program*).

Robb fails to explicitly teach partitioning a platter of a disk into a plurality of disk zones and the size of the plurality of disk zones;

However Ruff et al. teaches partitioning a platter of a disk into a plurality of disk zones (see, col. 6 lines 22-28 and col. 1 lines 11-66 and fig. 1) and the size of the plurality of disk zones (claims 33-38 and col. 23 lines 43-67).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Ruff et al. within the system of Robb because they are analogous in computer storage device. One would have been motivated to partition disk platter because disk platter is also a storage device that stores data like disk drive of Robb which is partitioned into ROM, ROM, and user mode (a mode that does not require password authentication during access request). Moreover, it would have been obvious to identify the size of the disk storage at the time of the invention was made because it would allow to store different size of multiple data/program.

7. Claims 2, and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robb et al. (Robb, US 6,931,503 B1) and Ruff et al. USPN 5,706,472, and further in view of Yamamoto et al. (Yamamoto, US 6,532,513 B1).

Regarding claim 2, Robb and Ruff et al. teach all the subject matter as described above and the method for data security with lock in a hard disk and a solid state disk (see, Robb fig. 2). Robb and Ruff et al. fail to explicitly disclose wherein the registers are a R_index register, a P_index register and a LBA_max register for indicating records of three disk zone sizes. However Yamamoto discloses wherein the registers are a R_index register, a P_index register and a LBA_max register for indicating records of three disk zone sizes (col. 12 lines 54-col. 12 lines 15; *LBA_max and register indexes are compared and disk storage is partitioned into different zone sizes*).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Yamamoto within the combination system of Robb and Ruff et al. because they are analogous in dividing magnetic information/data storage memory into plurality of segments (see, Yamamoto fig. 1 element 107 and claim 1). One would have been motivated to do so because it would have different sizes of register indexes (col. 12 lines 54-col. 12 lines 15).

Regarding claim 4, Robb, Ruff et al. and Yamamoto teach all the subject matter as described above. In addition Yamamoto discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register R_index.gtoreq.1 and the register LBA_max>the

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register P_index>the register R_index, the disk drive 1 is divided into three zones, the disk drive is divided into the user zone, the ROM zone and the protect zone (col. 12 lines 54-col. 12 lines 15; *LBA_max and register indexes are compared and disk storage is partitioned into different zone sizes*). The rational for combining are the same as claim 2 above.

Regarding claim 5, Robb, Ruff et al. and Yamamoto teach all the subject matter as described above. In addition Yamamoto discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register R_index.gtoreq.1 and the register LBA_max=the register P_index>the register R_index, the disk drive is divided into two zones, the user zone and the ROM zone (col. 12 lines 54-col. 12 lines 15; *LBA_max and register indexes are compared and disk storage is partitioned into different zone sizes*). The rational for combining are the same as claim 2 above.

Regarding claim 6, Robb, Ruff et al. and Yamamoto teach all the subject matter as described above. In addition Yamamoto discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register R_index.gtoreq.1 and the register LBA_max>the register P_index=the register R_index, the disk drive 1 is divided into two zones, the user zone and the protect zone (col. 12 lines 54-col. 12 lines 15; *LBA_max and register indexes are compared and disk storage is partitioned into different zone sizes*). The rational for combining are the same as claim 2 above.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Parzych et al. US 5,375,243; *using password to unlock a hard drive for protected data/program is very well known in 1991...1994.*
- b. Gardner Pub. No.: US 2003/0101322 A1: *partitioning a memory to store secure data/program...*
- c. For more prior arts see Form 892 attached.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867.

The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

E. S

August 21, 2006

MOAZZAMI
PRIMARY EXAMINER

8,22,06